

The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Original) A device for the paint-less dent repair of vehicles, for applying a leverage force between a rigid internal structure and an inside surface of a panel to be straightened, comprising:

a first removable tool head, including

a first base, having a first top surface and a first bottom surface,

a first work-piece contacting portion fixed to said first top surface, and

a first rod-like mounting portion having a first mounting end and a first tip support end,

a first central axis extending from the first mounting end to the first tip support end, and

a screw thread extending over at least a portion of an outer surface between the first mounting and the first tip support ends, wherein said first tip support end is fixed to said first bottom surface;

a second removable tool head, including

a second base, having a second top surface and a second bottom surface,

a second work-piece contacting portion fixed to said second top surface, and

a second rod-like mounting portion having a second mounting end and a second tip support end,

a second central axis extending from the second mounting end to the second tip support end, and

a screw thread extending over at least a portion of an outer surface between the

second mounting and the second tip support ends, wherein said second tip support end is fixed to said second bottom surface;

an elongated lever having an upper surface, a lower surface opposing said upper surface, a first aperture extending through said upper surface, and a second aperture extending through said lower surface;

a means for attaching the first rod-like mounting portion within said first aperture, such that an angle between said first central axis and said upper surface is between 45 and 91 degrees, wherein said first work-piece contacting portion is above said upper surface; and

a means for attaching the second rod-like mounting portion within said second aperture, such that an angle between said second central axis and said lower surface is between 45 and 91 degrees, wherein said second work-piece contacting portion is below said lower surface.

2. (Original) A device as recited in claim 1 wherein said elongated lever is comprised of a malleable material, wherein a force required to plastically deform said lever is greater than a force required to straighten a panel.
3. (Original) A device as recited in claim 1, wherein said first aperture and said second aperture are threaded holes.
4. (Original) A device as recited in claim 1, wherein said first aperture and said second aperture are slots.
5. (Original) A device as recited in claim 1, wherein said first and said second work-piece contacting portions are made from a material selected from the group consisting of metal, wood, plastic, rubber, carbon fiber composite, fiberglass composite, and solder.

6. (Original) A device as recited in claim 5, wherein said first and second work-piece contacting portions comprise:

an inner core, and

an outer layer; wherein the inner core is of a harder material than the outer layer.

7. (Original) A device as recited in claim 1, wherein

a first dimension between said first bottom surface and said upper surface, and

a second dimension between said second bottom surface and said lower surface,

are adjustable.

8. (Currently Amended) A device for the paint-less dent repair of vehicles, for applying a leverage force between a rigid internal structure and an inside surface of a panel to be straightened, comprising:

a first removable tool head, including

a first work-piece contacting portion, having a first bottom surface, and

a first rod-like mounting portion having a first mounting end and a first tip support end,

a first central axis extending from the first mounting end to the first tip support end, and

a screw thread extending over at least a portion of an outer surface between the first mounting and the first tip support ends, wherein said first tip support end is fixed to said first bottom surface;

a second removable tool head, including

a second work-piece contacting portion, having a second bottom surface, and

a second rod-like mounting portion having a second mounting end and a second tip support end,

a second central axis extending from the second mounting end to the second tip support end, and

a screw thread extending over at least a portion of an outer surface between the second mounting and the second tip support ends, wherein said second tip support end is fixed to said second bottom surface;

an elongated lever having an upper surface, a lower surface opposing said upper surface, a first aperture extending through said upper surface, and a second aperture extending through said lower surface;

a means for attaching the first rod-like mounting portion within said first aperture, such that an angle between said first central axis and said upper surface is between 45 and 91 degrees, wherein said first work-piece contacting portion is above said upper surface; and

a means for attaching the second rod-like mounting portion within said second aperture, such that an angle between said second central axis and said lower surface is between 45 and 91 degrees, wherein said second work-piece contacting portion is below said lower surface.

9. (Original) A device as recited in claim 8 wherein said elongated lever is comprised of a malleable material, wherein a force required to plastically deform said lever is greater than a force required to straighten a panel.

10. (Original) A device as recited in claim 8, wherein said first aperture and said second aperture are threaded holes.

11. (Original) A device as recited in claim 8, wherein said first aperture and said second aperture are slots.

12. (Original) A device as recited in claim 8, wherein said first and said second work-piece contacting portions are made from a material selected from the group consisting of metal, wood, plastic, rubber, carbon fiber composite, fiberglass composite, and solder.



13. (Original) A device as recited in claim 12, wherein said first and second work-piece contacting portions comprise:

an inner core, and

an outer layer; wherein the inner core is of a harder material than the outer layer.

14. (Currently Amended) A device as recited in claim 8~~claim 1~~, wherein

a first dimension between said first bottom surface and said upper surface, and

a second dimension between said second bottom surface and said lower surface,
are adjustable.

15. (Original) A device for the paint-less dent repair of vehicles, for applying a leverage force between a rigid internal structure and an inside surface of a panel to be straightened, comprising:

a first removable tool head, including

a first base, having a first top surface and a first bottom surface,

a first work-piece contacting portion fixed to said first top surface, and

a first rod-like mounting portion having a first mounting end and a first tip support end,

a first central axis extending from the first mounting end to the first tip support end, and

a screw thread extending over at least a portion of an outer surface between the first mounting and the first tip support ends, wherein said first tip support end is fixed to said first bottom surface;

a second removable tool head, including

a second base, having a second top surface and a second bottom surface,

a second work-piece contacting portion fixed to said second top surface, and

a second rod-like mounting portion having a second mounting end and a second tip support end,

a second central axis extending from the second mounting end to the second tip support end, and

a screw thread extending over at least a portion of an outer surface between the second mounting and the second tip support ends, wherein said second tip support end is fixed to said second bottom surface;

an elongated lever device having a proximal end and a distal end, comprising two rod-like members, of approximately equal length and oriented substantially parallel with each other;

a means for attaching the first rod-like mounting portion to said two rod-like members at a first position between said proximal end and said distal end; and

a means for attaching the second rod-like mounting portion to said two rod-like members at a second position between said proximal end and said distal end.

16. (Original) A device as recited in claim 15 wherein said elongated lever is comprised of a malleable material, wherein a force required to plastically deform said lever is greater than a force required to straighten a panel.

17. (Original) A device as recited in claim 15, wherein said first and said second work-piece contacting portions are made from a material selected from the group consisting of metal, wood, plastic, rubber, carbon fiber composite, fiberglass composite, and solder.

18. (Original) A device as recited in claim 17, wherein said first and second work-piece contacting portions comprise:

an inner core, and

an outer layer; wherein the inner core is of a harder material than the outer layer.

19. (Currently Amended) A device for the paint-less dent repair of vehicles, for applying a leverage force between a rigid internal structure and an inside surface of a panel to be straightened, comprising:

- a first removable tool head, including

- a first work-piece contacting portion, having a first bottom surface, ~~and~~

- a first rod-like mounting portion having a first mounting end and a first tip support end,

- a first central axis extending from the first mounting end to the first tip support end, and

- a screw thread extending over at least a portion of an outer surface between the first mounting and the first tip support ends, wherein said first tip support end is fixed to said first bottom surface;

- a second removable tool head, including

- a second work-piece contacting portion, having a second bottom surface, ~~and~~

- a second rod-like mounting portion having a second mounting end and a second tip support end,

- a second central axis extending from the second mounting end to the second tip support end, and

- a screw thread extending over at least a portion of an outer surface between the second mounting and the second tip support ends, wherein said second tip support end is fixed to said second bottom surface;

- an elongated lever device having a proximal end and a distal end, comprising two rod-like members, of approximately equal length and oriented substantially parallel with each other;

- a means for attaching the first rod-like mounting portion to said two rod-like members at a first position between said proximal end and said distal end; and

a means for attaching the second rod-like mounting portion to said two rod-like members at a second position between said proximal end and said distal end.

20. (Original) A device as recited in claim 19 wherein said elongated lever is comprised of a malleable material, wherein a force required to plastically deform said lever is greater than a force required to straighten a panel.

21. (Original) A device as recited in claim 19, wherein said first and said second work-piece contacting portions are made from a material selected from the group consisting of metal, wood, plastic, rubber, carbon fiber composite, fiberglass composite, and solder.

22. (Original) A device as recited in claim 21, wherein said first and second work-piece contacting portions comprise:

an inner core, and

an outer layer; wherein the inner core is of a harder material than the outer layer.